

December 16, 2015



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 7477
(EIGHTEENTH REVISION)

1. GRANTEE: (See individual authorization letter)
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of certain Division 2.2 materials in non-DOT specification containers. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
 - c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302a(a)(1) and § 173.304a(a)(1) in that non-DOT specification cylinders are not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Meggitt Safety Systems, Inc. dated November 4, 2015, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

| Hazardous Materials Description | | | |
|--|------------------------|-----------------------|---------------|
| Proper Shipping Name | Hazard Class/ Division | Identification Number | Packing Group |
| Bromotrifluoromethane or Refrigerant gas, R 13B1 | 2.2 | UN1009 | N/A |
| Carbon dioxide | 2.2 | UN1013 | N/A |
| Compressed gas, n.o.s. | 2.2 | UN1956 | N/A |
| Nitrogen compressed | 2.2 | UN1066 | N/A |

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is a non-DOT specification seamless aluminum cylinder in conformance with DOT-3AL having a marked service pressure of 1800 psi, modified by enlarging the end opening in accordance with Systron Donner Engineering reports ER-76-115 dated April 26, 1976, or ER-91-031 dated June 29, 1992, or having a marked service pressure of 2015 modified by enlarging the end opening in accordance with ER-76-127 dated September 22, 1976, on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). All cylinders manufactured after January 1, 1992 must be made of aluminum alloy 6061-T6. The modification is as follows:

1. For cylinders modified to provide 1.750-12UN-2B threaded opening, the minimum outside diameter of the cylinder neck must be 2.190 inches.
2. For cylinders modified to provide 1.000-12UN-2B threaded opening, the minimum outside diameter of the cylinder neck must be 1.410 inches.
3. Remove DOT-3AL stamping and replace with "DOT-SP 7477".

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4. The following specific designs are authorized.

| Part # | Outside Diameter (Inches) | Length (Inches) | New Thread Size | Cycling Test |
|----------------|------------------------------|--------------------|--------------------|--------------|
| M-B, M9 or C-2 | 4.375 | 9.25 | 1.000-12UN-2B | No |
| M-D | 4.375 | 16.62 | 1.000-12UN-2B | No |
| M-E | 4.375 | 25.75 | 1.000-12UN-2B | Yes |
| C10 | 6.890 | 16.75 | 1.750-12UN-2B | No |
| C15 | 6.890 | 23.37 | 1.750-12UN-2B | Yes |
| C20 | 8.000 | 23.62 | 1.750-12UN-2B | No |
| C35 | 8.000 | 38.37 | 1.750-12UN-2B | Yes |
| C50 | 8.750 | 45.37 | 1.750-12UN-2B | Yes |
| C70 | 9.800 | 51.93 | 1.750-12UN-2B | Yes |

b. Prior to the initial shipment of any specific design, cyclic pressurization tests must have been performed on three representative modified cylinders of each design under the surveillance of an independent inspector in accordance with paragraph 7.a 4. above.

c. Cylinders having a marked service pressure of 1800 psi, that have been modified prior to the issuance of the first revision of this special permit may continue to be used under the terms of this special permit.

d. TESTING - Cycling tests must be performed by hydrostatically pressurizing the cylinder between approximately zero and the marked service pressure at a rate not to exceed 10 cycles per minute. Cylinders must withstand 100,000 such pressure cycles without showing evidence of distortion, deterioration, or failure. All cylinders used in cycle tests must be destroyed.

e. Each cylinder must be retested at least every five years as prescribed in § 180.205 for DOT Specification 3AL cylinders, except that a cylinder condemned for excessive permanent expansion may not be reheat-treated.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

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- b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
 - c. A cylinder which has been subjected to the action of fire must not again be placed in service.
 - d. Reports identifying all cylinders modified under this special permit must be prepared and retained on file by Meggitt Safety Systems, Inc., (formerly Whittaker Safety Systems). Prior to renewal of the special permit a listing of these cylinders must be submitted to the OHMSPA.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or aircraft used to transport packages covered by this special permit. The shipper must furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

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No person may use or apply this special permit, including display of its number, when the special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) - 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: dl/kah